AEWA European Goose Management Platform

# Briefing Note

## Population status and management recommendations

*9th Meeting of the European Goose Management International Working Group (EGM IWG9)*

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## Background

The European Goose Management Platform (EGMP) was established in 2016 under the auspices of the African-Eurasian Waterbird Agreement (AEWA) to provide the mechanism for a structured, coordinated and inclusive decision-making and implementation process for the sustainable use and management of goose populations in Europe, with the objective of maintaining them at a favourable conservation status, while taking into account concerns of relevant stakeholders and the pertinent legislative frameworks and regulations.

Currently, four goose species are managed under the EGMP; the Svalbard Pink-footed Goose population, three populations of Taiga Bean Goose (the Scandinavia/Denmark and UK population, the West Siberia/Poland and Germany population, and the Finland and NW Russia/Sweden, Denmark and Germany population), two populations of Barnacle Goose (E Greenland/Scotland and Ireland population and Russia/Germany and Netherlands population) and the NW/SW European Greylag Goose population.

Each year the EGMP Population Status and Offtake Assessment Report provides the status, offtake assessment, and management guidance for the goose populations managed under the EGMP. The information covers aspects related to population status, survival, and productivity, as well as an assessment of the cumulative impact of derogation and legal hunting and, for some populations, an assessment of the optimal harvest strategy.

Following the annual assessment process, the European Goose Management International Working Group (EGM IWG) meets to discuss the findings of the EGMP Population Status and Offtake Assessment Report and on this basis provide management recommendations for each population.

This briefing note provides the main messages from the EGMP Population Status and Offtake Assessment Report 2024 and the management recommendations by the 9th annual meeting of EGM IWG in 2024. Note that management recommendations follow the wording of the EGM IWG9 Decisions Table agreed on by the EGM IWG members.

For more information about the EGMP and previous results please visit our website (https://egmp.aewa.info/).

## Status of Pink-footed Goose

In 2023, the Data Centre committed to investigate potential biases in the biannual counts by exploring the use of GPS-tagged birds to estimate detection probabilities. The estimated detection probability during the spring count in 2023 was 0.89, indicating a negative bias. During the November counts the estimated detection probability was 0.87. In May 2024, counters were supplied GPS locations to increase the detection probability, resulting in an estimated detection rate of 1.10, indicating a positive bias. The greatest difference in population estimates based on the new GPS corrections occurs over the last five years. This is precisely the period when the Integrated Population Model was previously having trouble reconciling the difference in raw counts between May and November of the same year. The bias-corrected population estimates suggest a stabilization of numbers since 2010 rather than a decline in recent years as previously reported. From an estimated 73,631 birds in May 2023, the population grew to 78,139 birds in November 2023. The estimate of the May 2024 population size is 77,713. The harvest has decreased significantly in Denmark during the last three years for reasons that are still unclear. The estimated harvest quota for the 2024/2025 hunting season is 26,700 birds (8,010 and 18,690 for Norway and Denmark, respectively).

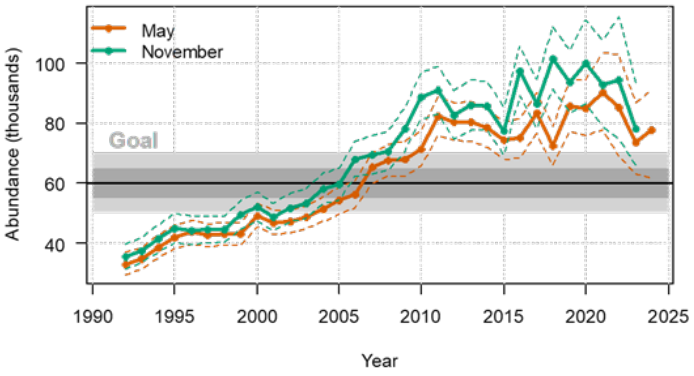


*Figure 1. IPM-based estimates of abundance of Svalbard Pink-footed Geese in May and November, relative to the goal of 60,000 (95% credible intervals are indicated by the dashed lines). The dark grey band centered on the goal defines near-complete stakeholder satisfaction with population sizes, while the light grey band exhibits ≥ ½ of maximum satisfaction.*

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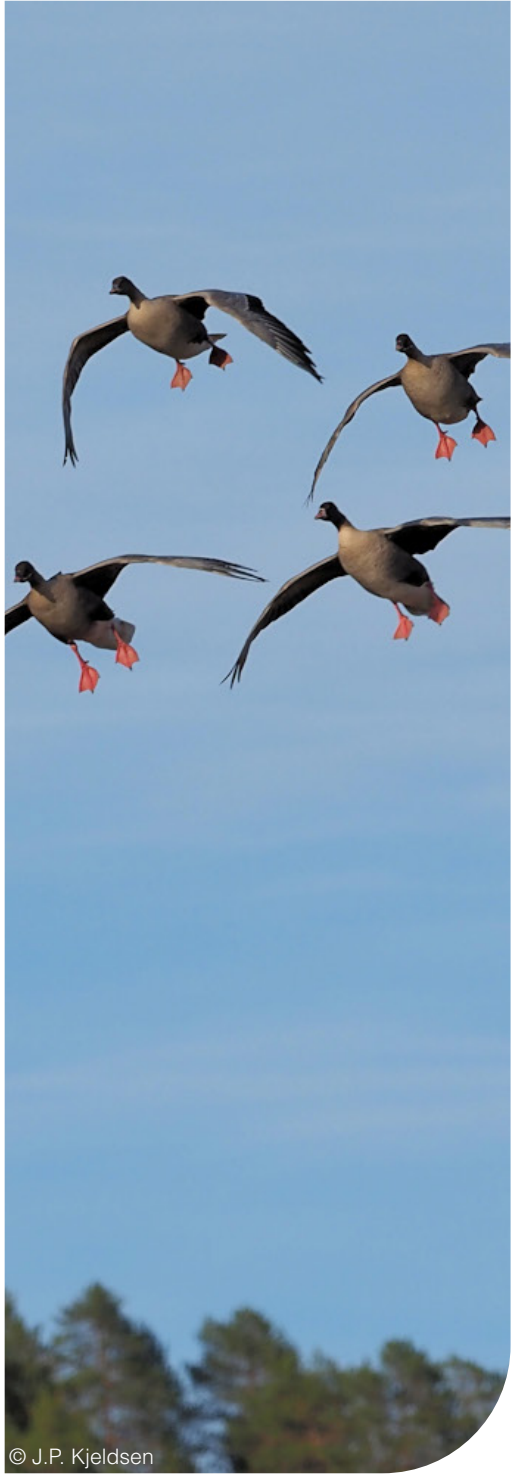
## Management recommendations for Pink-footed Goose

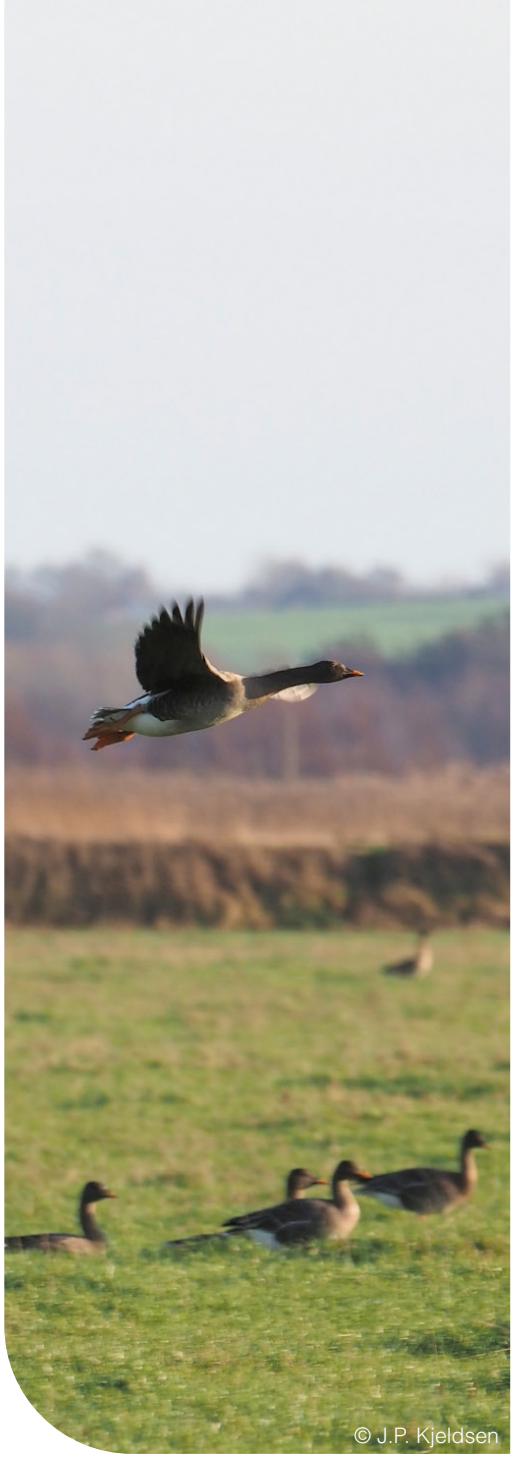
The estimated pre-breeding population in 2024 was 77,713 individuals. With 11 days above freezing in Svalbard in May, the predicted proportion of young in autumn is 21%, suggesting a post-breeding population size of 94,348 individuals.

Accordingly, the optimal harvest quota for the 2024/2025 hunting season is 26,700 individuals, which if achieved would result in a spring population near the target of 60,000 in 2025. For comparison, the realized harvest has averaged 10,111 (sd = 734) during the last three years.

Further to that, EGMP Range States agreed on the following points:

1. Range states will devote the necessary resources to participation in the ISSMP revision process (including defining FRVs, commenting on draft documents, and participation in online meetings and in-person revision workshop).
2. GPS-tagging efforts should be continued, serving to improve population assessments as well as following the development of the flyway distribution and connectivity, monitoring avian flu (via the catches of geese), establishing a flight safety warning system and monitoring climate change effects on distribution during and outside the breeding season.

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## Status of Taiga Bean Goose

In the Scandinavia/Denmark and UK population, the January count in 2024 was almost twice as high as in 2023 (up to 1174 individuals recorded, compared to 631 last year), with the main increase seen in Denmark.

Research projects on the West Siberia/Poland and Germany population continue, yet so far only limited information updates have been made available.

For the Finland and NW Russia/Sweden, Denmark and Germany population, population estimates have been corrected for incomplete counts using GPS-tagged individuals. The March 2024 population estimate is 75,363, which is essentially the same as the March 2023 estimate of 74,356 (reported last year as 66,166). Once incomplete detection probabilities are accounted for, there is an 88% probability that the March 2024 population is above the target of 70,000.

Due to hunting restrictions in all three range states of the Finland and NW Russia/Sweden, Denmark and Germany population, the total harvest has only averaged 453 birds (sd = 71) during the last two years. Harvest rates declined dramatically following the Finnish harvest moratorium in 2014, and this decrease in harvest rate coincides with strong growth in the population.

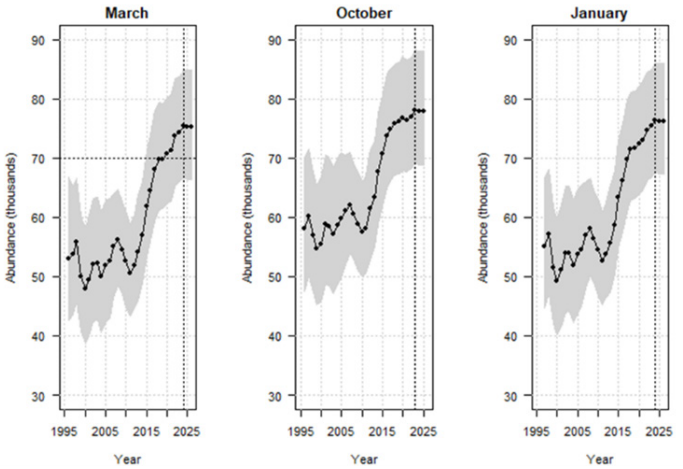



*Figure 2. Posterior estimates of population size (in black, with 95% credible intervals in grey) based on an IPM for Taiga Bean Geese in the Finland and NW Russia/Sweden, Denmark and Germany population. The vertical, dashed lines represent the last (biological) year of data. Future abundances were projected based on an assumed harvest of approximately 1,000 birds. The horizontal line at 70,000 in the left panel represents the median population target.*

## Management recommendations for Taiga Bean Goose

The EGM IWG agreed on a total annual harvest of less than 3,000 birds (1740 birds for Finland, 900 birds for Sweden, and 360 birds for Denmark) from the Finland and NW Russia/Sweden, Denmark and Germany population for 2024/2025.

## Status of Greylag Goose

Despite considerable improvements in data availability, it has still not been possible to move from the information-gap decision model at population level to a dynamic and model-based management at Management Unit (MU) level. Progress has been made over the last two years, including the development of a flyway population model, a utility model used to evaluate various offtake strategies in terms of their ability to meet population targets, and a model for estimating number of breeding pairs from post-breeding counts. Such counts were carried out in all Range States in 2022 (although data is only available from three of the German federal states). The results of these counts have now been summarized to provide an estimate of the breeding population size.

A post-breeding population of 540,115 individuals in MU1, resulting in an estimated 132,000 breeding pairs, and a post-breeding population of 768,956 individuals in MU2, resulting in 183,000 breeding pairs, indicate that both MUs are well above the targets of 70,000 and 80,000 breeding pairs, respectively. Model-based MU or population level management is, however, still not possible as data on post-breeding and winter population size are still lacking in some cases. Moreover, offtake data still appear to be biased high, perhaps extremely so.

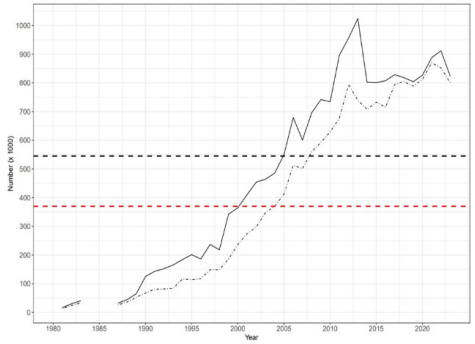
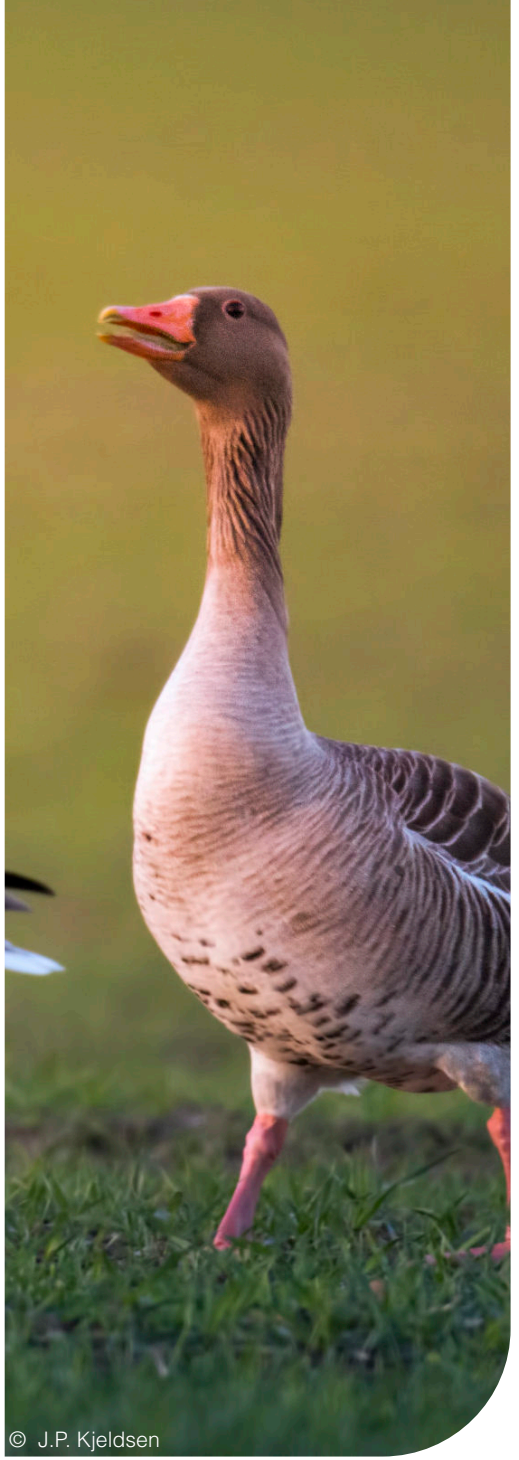



*Figure 3. Development of the size (individuals) of the NW/SW European mid-winter population of Greylag Geese based on IWC imputed values from 1980-2023, with (solid line) and without estimates from Spain (dot-dashed line), as well as special goose count schemes in Denmark and the Netherlands. The dashed black line represents the target for the wintering population, and the red dashed line represents the FRP.*

### Management recommendations for Greylag Goose

The EGM IWG acknowledged that due to data availability issues, the population still cannot be managed in a coordinated manner across the Range States. However, considering that the population shows no declining trend, the Range States can, as a minimum, maintain the current level of offtake, until data quality issues are resolved. Furthermore, all Range States should focus on offtake strategies with proportionally higher non-breeding season offtake, thus minimising the need for breeding-season derogation within their respective national laws.

All Range States will strive to provide the necessary data, including reliable offtake estimates (by country and biannual period), annual estimates of summer or early autumn abundance, winter counts, and post-breeding age ratios.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## Status of the Barnacle Goose – Russia/ Germany and Netherlands population

Data from field counts as well as estimates from the IPM indicate an estimated flyway population of about 1.4 million individuals in midwinter 2022/23, which is equivalent to 3.8 times the FRP. The population has been stable around this level for four years now, after a long period of nearly continuous growth. Converted into breeding pairs, Russian MU1 and Baltic MU2 are well beyond the FRP, albeit for the Baltic MU2 population the credibility intervals touch the level of 200% FRP (urging for coordination if a significant increase in derogations in planned in countries of this MU). In the North Sea MU3-population, the number of breeding pairs is very close to the FRP. Thus, derogation effort targeting the breeding population should be undertaken with caution here (not relevant for Belgium as the breeding population here is not considered naturally occurring). At present this is only applicable to The Netherlands, where derogations mainly take place in the summer period. If significant derogation activities are planned in Germany during the breeding period, there should be coordination in place between these two countries. Furthermore, as derogation in The Netherlands is the responsibility of the provincial administrations, a coordinated approach is needed here as well which has been in progress in 2023.

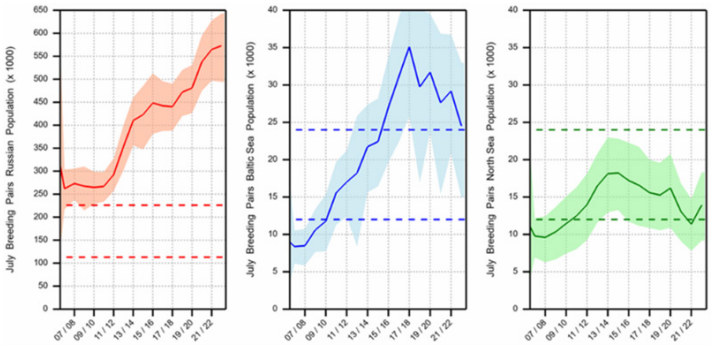


*Figure 4. IPM-based means (solid line) and 95% posterior intervals (shaded areas) for the number of breeding pairs in July for the three MUs. Dashed lines are the FRP as well as the 200% of the FRP. Left in red: MU1, centre in blue: MU2, right in green: MU3. In the IPM framework, the number of breed- ing pairs has been set as the number of individuals of 2 years and older, divided by 2. Note the different scale on the y-axes.*

### Management recommendations for Russia/Germany and Netherlands population of Barnacle Goose

Given that the population size of MU2 has recently moved towards the 200% threshold, coordination among MU2 Range States should be considered, particularly if large changes in derogation practice are foreseen.

Coordination among MU3 Range States should be continued, and coordination should mainly take place within the Netherlands, where the national FRP has now been distributed across the provinces. Suspension or significant reduction of derogations has already taken place in some provinces in the Netherlands.

## Status of Barnacle Goose – East Greenland/Scotland and Ireland population

For the first time, this year's status report is based on the integrated population model. After a peak flyway population of 80,000 in 2006 and in 2012, abundance declined to 56,994 in March 2024. For much of the period of record, abundance on Islay exceeded that in all other wintering areas, but that pattern has been reversed since 2018.

The total harvest rate of adults has increased over the period of record, from around 1 per cent to a peak of 5 per cent in 2017. Thereafter, harvest rate declined to 3 per cent in 2023. Annual survival rate of adults (including both harvest and natural mortality) declined while harvest rates were increasing, suggesting that harvest may have contributed to the decline in flyway abundance, although poorer than average reproduction could also have played a role.

There is a 24% probability that the March 2024 population is below the FRP of 54,000. Because of the proximity of the population to the FRP, the Adaptive Flyway Management Plan requires coordination of offtake between Iceland and Scotland to ensure the population does not fall below the FRP.

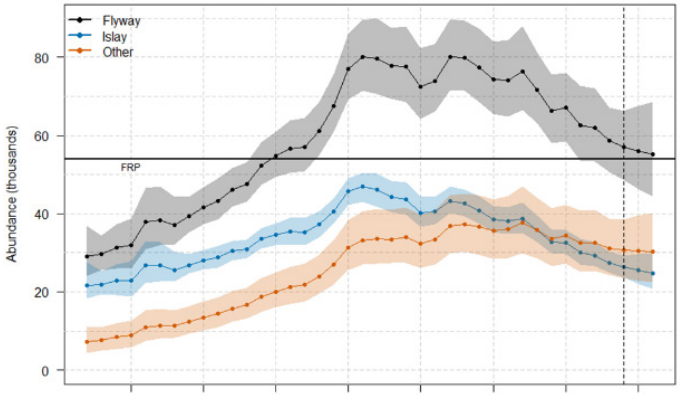


*Figure 5. Development of the March population size of E. Greenland/ Scotland & Ireland Barnacle Geese as based on the IPM. The dashed vertical line represents the last empirical estimate. Two further years have been projected assuming harvest rates equal to the most recent 5-year means. Shading represents the 95% credible intervals.*

## Management recommendations for East Greenland/Scotland and Ireland population of Barnacle Goose

Iceland and the United Kingdom should seek agreement on the maximum level of offtake to be permitted (if any) and the split between the two Range States, taking into consideration the projections of the EGMP Data Centre. Such agreement will be concluded before the start of Iceland's 2024/2025 hunting season.

Iceland and the United Kingdom will develop and implement a coordination mechanism to ensure adherence to these limits, and inform the EGM IWG in writing on both the agreed level of offtake (if any) and the agreed coordination mechanism immediately after these arrangements have been agreed. The anticipated agreement between Iceland and the United Kingdom in this regard shall not be considered as a precedent in the context of any future EGM IWG decisions or in the broader context of AEWA.

Iceland and the United Kingdom will submit a written report to EGM IWG10 on the implementation of the coordinated mechanism and adherence to the agreed level of offtake.

The AEWA Secretariat will initiate a process to develop guidance on compliance with the obligation to maintain or restore populations to a favourable conservation status in relation to the risk of falling below the favourable reference population.

New work will include considering the impacts of HPAI on both populations and how this might impact on the agreed management activities.


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**Population Report: Population Status and Offtake Assessment Report 2024**

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